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ABSTRACT

A general education cluster course structure at the State University of New York, Plattsburgh, is described. Philosophy, anthropology, and geography classes met separately to cover the different disciplines, and joint sessions for learning exercises were held. Cluster course objectives were: to provide undergraduates with a broad and integrative general education experience; create an active learning atmosphere, and develop a design that could be sustained in a disciplinary environment with either a core or category-type general education program. The joint sessions are built around contemporary issues, and the pedagogy requires active exploration of the relationship between values and decisions. Exercises used in the joint session are described, and exercises that have been successful and unsuccessful are included as illustrations. The exercises include a panel discussion, role playing, and exercises involving small group and large group activities. The cluster structure can be applied to different disciplines and changes in faculty can be accomplished without much administrative interference. One difficulty was coordination on the course outline and the selection of written materials and exercises. (SW)

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ACTIVE LEARNING IN AN INTERDISCIPLINARY COURSE

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Introduction

The faculty at SUNY Plattsburgh, like many of our colleagues at other institutions, share a commitment to a strong liberal arts education. In fact, there has been a lively debate on our campus about the structure and content of our current General Education Program (GEP). Local criticism of our distributive category-type program abounds, but little beyond debate, study and "curriculum tinkering" has been done. Not surprisingly, much of what has been said on our campus mirrors the criticisms found in the flurry of reports on the state of higher education which have issued forth over the last few years. The narrow and overspecialized nature of many of the GEP course offerings has been a main concern here and elsewhere. While we were members of the General Education Committee, we decided to take action by creating a model which would simultaneously avoid the narrowness problem, meet the current GEP guidelines and anticipate a change to a integrated core-type program.

From the onset we were most interested in bridging disciplinary boundaries. We wanted to achieve this end by directly involving the students in the learning process. As a

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result we became convinced that active or participatory learning was a necessary accompaniment to any solution of the narrowness problem. Our intitial concept was to design and implement an interdisciplinary team taught course for a GEP category in which all of our disciplines participate (i.e., Philosophy, Anthropology and Geography). The problem with this idea was that it needed approval from two committees, caused problems in the allocation of FTE and ran into the traditional turf guarding which is a part of the narrowness problem to begin with. Therefore, we decided to cluster three distinct courses (Comparative Cultures, Cultural Geography and Social and Political Philosophy) which already exist and are part of the Individual and Society component of the GEP, thereby eliminating the need for committee approval and avoiding departmental political squabbles. The separate sections of these courses are scheduled for the same hours and days. The courses meet both separately and jointly. In joint sessions, where all three classes are together, we do specially designed exercises which actively engage students in the overlapping subject matter of our disciplines (see below). During the independent sessions (i.e., when the courses meet separately) the students are presented with the perspectives of our distinct disciplines and provided with the opportunity to cooperatively prepare for the exercises that take place during the joint sessions. We were able to secure course release time through a General Education Committee program and funding from the Research Foundation of the State University of New York (Faculty Grant

for the Improvement of Undergraduate Education) in order to design the exercises and coordinate the content of the three separate courses. We began experimenting with the concept in the Spring of 1986 and implemented the cluster for the first time in the Fall of 1986.

The cluster course, as implemented, has three major objectives. First, it attempts to provide undergraduate students with a broad and integrative general education experience. Students, who enroll in any of the courses, are exposed in varying degrees to all of the disciplines involved. As a result, they should see how these different disciplines share concerns while approaching significant intellectual and practical issues from different perspectives. Second, the pedagogy of the cluster, especially during the joint sessions, is intended to create an active learning atmosphere. Students then learn how their introductions to geography, anthropology or philosophy apply to important social issues. At the same time, we hope to intellectually enliven student culture. Third, we wanted a design which could be sustained in a disciplinary environment with either a core or category-type GEP. In effect, our cluster course is one possible affirmative response to Ernest Boyer's (1987) questions, "Can the American college, with its fragmentation and competing special interests, define shared academic goals? Is it possible to offer students, with their separate roots, a program of general education that helps them to see connections and broadens their perspective?"

Exercises

In this section we will describe some of the exercises used in our joint sessions. We have included several actual exercises which have been successful, along with an example of a failed activity.

A good policy for any team taught course that intends to use active learning is to tell the students what you're up to early in the semester. We used a short movie as the occasion to do this the first semester. The movie, an ethnographic film, gave us the chance to stand in front of the class, after it finished, and give our perspectives and thoughts about it. We were able to establish differences in terminologies and methods, as well as establish that we are friends and share many goals for the class. At this point we emphasized our commitment to general education as well as its significance.

It is informative to describe one exercise which boardered on disaster. This, unfortunately, was the first active learning exercise of the semester and may have influenced student attitudes toward subsequent exercises. The exercise is called "Perspectives on War," and its goal is to involve students in a panel discussion on this topic. We divided our independent classes into small groups (5-6 students) in which the students selected one of six questions on war and discussed their positions with the goal of developing unanimity within the small groups. Working together the groups prepared justifications for their positions and appointed spokespersons. So, for example, one group in the Social and Political Philosophy class chose

the question "What are the causes of war?" Other questions addressed were "Are humans by nature war fighters?" and "What are the alternatives to nuclear deterrence?" Well, with hindsight the problem seems obvious. The philosophy class had 5 groups, the anthropology and geography classes had 7 or 8 each. We gave the representatives two minutes to present perspectives on their questions (What--a whole two minutes to identify the causes of war?).

Imagine, then, the classroom situation: about 130 students seated, about 17 - 20 students forming the panel in front and an incredibly complex topic. The results were confusion, some give and take between students, a little instruction and a lot of getting cut-off in the middle so we could move on to the next question. None of us were satisfied with what was intended to be a great learning experience.

The panel discussion exercise is, nevertheless, well worth attempting. Besides the inclass preparation, it should be structured in four phases: 1) short presentations by members of the panel; 2) questions and answers for clarification purposes between members of the panel; 3) discussion and criticism of positions among panel members; 4) questions from the audience. It is important that students prepare a written answer to their questions before the panel discussion and that they get some time to prepare for the discussion before it takes place.

This exercise failed because the choice of topics was too broad and there were too many questions and groups represented on the panel. A final failure was to try to do too many things

in one class period. As if all the above wasn't enough, we asked the audience to evaluate the presentations and preparations of the panelists. So, about 130 forms had to be handed out and collected at the end of class. Needless to say, the situation came to resemble a Marx Brothers' movie with the three instructors playing the principals.

Included below are three exercises we have used which have met with reasonable success. Each of the exercises relates well to materials normally covered in most introductory cultural anthropology, cultural geography and social and political philosophy courses. The exercises should be combined with readings done by all students and it is advised that writing assignments which relate directly to the exercises be attached to them. Making participation in the exercises and serious consideration of their meaning an integral part of the evaluation process makes students take these experiences more seriously. Class time in the independent sessions can be used to allow students to prepare their presentations, arguments and strategies for the joint meetings.

Inclass exercise 1: Social Stratification and Inequality--
Equality is a fundamental concept in America. "All men are created equal" is an important tenet of democratic societies. It is not, however, always applied justly and fairly. Our object in this exercise is to analyze and evaluate the conflict between the fact of social stratification and the belief in equality.

Objectives: We want you to become critically aware of your beliefs and biases concerning this issue. We want you to come to understand other positions on this issue, positions which may conflict with your own. We want you to come to understand that progress can be made on this issue by careful thinking and discussion.

Background: Imagine that you are a member of a medical school admissions board. Your group will decide who gets into your medical school. You have many more applicants than

openings. In fact, there are only three openings left, and you have five candidates in the top group. All three openings must be filled. Those not selected will be unable to attend another medical school. You should imagine that you will be required to tell each candidate what your decision is face to face.

Role-playing format: You will be meeting with your group to decide on final admissions. Once you are seated in your group do the following: 1) Introduce yourselves and elect a spokesperson. 2) Go through the candidates and decide by vote which three get in. 2/3 majority is necessary. If initial votes are inconclusive, discuss until decision is reached. 3) Identify and list the best reasons for your decisions. 4) identify any assumptions you made about the candidates or circumstances. 5) Decide which policy you followed (see below).

Student preparation: Before class you should: 1) Make your own choices for the three openings. 2) Write at least one reason for each decision. 3) On the back of your worksheet, outline two arguments in favor of affirmative action and two against.

Worksheet:

Name	Wally	Candy	Homer	Terry	Rose
Af. Act. Class	White	Hisp.	Black	White	Veteran
G.P.A.	3.2	3.0	3.3	3.6	3.1
MCAT	540	540	520	560	510
School	Yale	Albany	U.VT	Bennington	Potsdam
Age	25	27	25	28	35
M. S.	Sing.	Div.	Mar.	Sing.	Mar.

Notes: Affirmative Action Class is identified by applicant. MCAT top score is 600. M.S. refers to marital status. We include letters of application from each applicant. [Space limitations make it impossible to include examples here.]

Policies: 1) Nondiscrimination--A selection process is nondiscriminatory if it takes race, religion, sex or ethnic background into account only when they are relevant to the qualifications of the applicant. 2) Affirmative Action--This requires more than neutrality. It requires the taking of positive steps to promote more adequate representation of victimized groups within the applicant pool, and presumably among those selected. 3) Strong Preferential Treatment--Requires that positive weight be given to race and sex in the selection process. Thus, this policy may require the favoring of less qualified candidates.

Inclass Exercise 2: Power and Political Economy--Who rules in America? While we are all familiar with the standardized description of "how decisions are made" we also know that real power is very unevenly distributed. The following Peace Council exercise should highlight the dilemmas of collective decision-making.

Objectives: 1) To illustrate the relations between people and the environment. 2) To identify the conflicts between

Western and American Indian philosophies. 3) To show how social factors influence decision making.

Background: Imagine the newly formed state of New York (circa 1790) has just passed legislation to construct a road from Syracuse to Buffalo (a map is included). The road will pass directly over Onandaga land. This decision has sparked considerable controversy and resulted in the calling of a special peace council. Four primary groups will participate in the discussion of this new road: 1) Local Onandaga people who have resided in this area for over 100 years. 2) Leaders of Onandaga allies from the Iroquois Confederacy. 3) White settlers from Syracuse and lower New York State. 4) Elected and administrative officials from the State of New York [Assign students to each group in roughly equal numbers]. The following actions have sparked this debate and also led to threats of violence.

Initial Conditions: 1) The state has officially appropriated the highway right-of-way and offered to pay a fair price for the land. 2) White settlers are anxious to bring progress and civilization to upstate New York. 3) The governor claims the highway will "benefit" all citizens of the state. 4) The Onandaga and their allies view this highway as a threat to their survival. 5) The State Assemblyman from Syracuse is a businessman. 6) Construction starts in three months.

Format: For the first 5-10 minutes of class the various groups will get together and organize their position. A small group of students will be selected to be the judges of the hearing. The task of the judges will be to consider the issues in the conflict, determine which values should prevail and identify an equitable solution. The Peace Council will proceed in the following way. First, one person from each group will present a short (2-3 minute) summary of each group's position. Next, the moderators will recognize speakers from the floor to respond both to the issues which have been raised and to new questions. During this process the judges may direct questions to any of the speakers. After extensive testimony the judges will convene and make their decision. They will find in favor of the American Indians or Whites, provide their solution and give their reasons. Following this, the whole class will discuss what happened during the Peace Council and the issues it raises about power, ethnocentrism and collective decision making.

Evidence of preparation: Each student will prepare a detailed two page outline which provides the following: 1) Your group's perspective with examples, evidence and logic. 2) What major objections will your opponents raise? 3) Why are these inadequate or wrong? 4) What three alternative solutions do you offer, from best to worst?

<u>Inclass Exercise 3: Food, Hunger and Agriculture</u>--The class is going to simulate a meeting of the General Assembly of the United Nations. This meeting will consider alternative proposals to improve the food systems and economies of Third World Nations.

Objectives: The objectives of this exercise are to make us think about the complexities of the food, population and environmental problems facing everyone. Furthermore, this exercise should give us an idea of how these problems are influenced by power, geopolitical considerations and international economics.

Format: Students or groups of students (depending on class size) will represent different U. N. member states. We will debate and discuss two resolution designed to solve some problems associated with population growth and food shortages. Member states supporting or opposed to a resolution will be given three minutes each to explain their positions. After both propositions have been formally discussed we will have a question and answer period during which representatives of other nations will be able to question any of the previous speakers regarding their position. It is expected that some of the sponsors of each resolution will speak in favor of that resolution. Anyone can oppose a proposition, but your opposition should be based on the reality of the current geopolitical situation, the economic ramifications for the nation you represent, and on more general ethical considerations. Following the question and answer session we will have a roll call vote on both resolutions. After the votes we will discuss the arguments presented and the outcome of the votes.

In order to prepare for this simulation you should take some time to find out about the country you represent. You should know where it is, what its main resources are, level of industrial and agricultural development, who it trades with, its GNP, degree of urbanization, etc.

Evidence of Preparation: You should write an outline of your position on each of the resolutions. Include both arguments in favor and against each resolution and some consideration of the proposed advantages of each. Focus your arguments on the intent of these proposals rather than on their lack of detail.

CAPITAL INTENSIVE AGRICULTURAL DEVELOPMENT
FOR ECONOMICALLY CHALLENGED COUNTRIES

Sponsors: U.S.A., Canada, Japan, United Kingdom, France, German Federal Republic and Italy

Funding: Funded primarily by the U.S.A. but with support from the other sponsoring nations, U.N. agencies will develop an agricultural development program for qualifying nations. Grants would be made directly to the appropriate agencies of the receiving nations. Grants would be made through the appropriate U.N. agencies. Nations who are able to demonstrate World Bank Loan support for agricultural development of the kind outlined in this proposal will be given priority.

Qualifying Nations: Those U.N. member states with per capita GNP below the median for all U.N. member states. Priority will be given to those nations which demonstrate some funding leverage in their application (i.e., have World Bank Loan support).

Program: The program will focus on development of technologically sophisticated, capital intensive modes of agricultural production for economically challenged member states. The program is intended to increase food production and cash crop production in order to better feed the growing populations of qualifying nations, while simultaneously improving and stabilizing their economies. Funding would support acquisition of equipment, agricultural extension and training, purchase of high yield seed, fertilizer, herbicides and pesticides (necessary high tech inputs), and the development of irrigation systems. The program would stress the large scale introduction or enhancement of grain crops (e.g., rice, wheat, corn) and marketable cash crops (e.g.,cotton, sugar, sunflowers and sisal). The major advantages of this program would be increased yield per acre of grain crops, more efficient utilization of arable land and the potential for developing surplus grain production for export. The development or improvement of the cash crop economy is projected to increase per capita income and GNP while helping both to reduce trade deficits and to service already existing national debts of qualifying member states.

ENHANCING SUBSISTENCE BASED AGRICULTURE
FOR DEVELOPING NATIONS

Sponsors: Sweden, China, Cuba, Zimbabwe, Bangladesh, Tanzania, and Nicaragua

Funding: Monies to support this program would come through the dues of member states, but might require some increase in contributions. The program would be administered through U.N.E.S.C.O. with grants going directly to national or local agencies of the qualifying U.N. member states or to specially created, locally controlled co-ops formed in response to this proposal [co-op = a cooperative which is an organization of cooperating individuals who jointly undertake a task (like marketing a crop). A co-op could be organized on either traditional kinship ties or on voluntary ties stemming from similarity in goals].

Qualifying Nations: Those member states which can demonstrate or project: 1) food shortfalls as a result of either population increase or environmental degradation; 2) inequitable land distribution which is causing rural flight (i.e., rapid urbanization).

Program: Funding would support agricultural training stressing the reintroduction or enhancement of subsistence farming using traditional food crops and both innovative and traditional farming methods. Labor intensive agriculture would be favored, especially in countries suffering from the negative consequences of rapid urbanization. Grants would also support the development or reestablishment of local markets while simultaneously assisting in the creation of marketing co-ops and the development of marketing strategies. Funds would be provided to develop demonstration projects for the redistribution of arable land. These monies could be used for

purchase of land from either corporations or wealthy landlords for reallocation to co-op participating local residents with a demonstrated need. The major advantages of this proposal are the improvement of food production, availability and distribution at the local and regional levels within the boundaries of qualifying member states. Since the proposal focuses on labor intensive methods, it will increase the employment opportunities of rural people and decrease the problems associated with rapid urbanization and alienation from the land. Since the proposal has built in sensitivity to the local ecology, environmental degradation will be avoided or reversed. Finally, this proposal should result in more equitable distribution of wealth in the qualifying member states.

We are relatively satisfied with student reaction to each of these exercises. Generally, class participation is good in all of them. We usually rely on voluntary participation. However, as issues become more complex and more dependent on outside research the level of participation tends to decline. Thus, in future meetings where we use the U.N. simulation we will call on students to respond rather than rely on their voluntary participation. It is possible to include more detail for any of these exercises. For example, in the Peace Council exercise we cue student awareness to the issues by suggesting that students consider how the Onandaga or White settlers might feel about the construction of the road or about losing their land.

Advantages, Problems and Solutions

In this section, which will serve as our conclusion, we will discuss the benefits and problems with the cluster course concept as we implemented it. We began planning this more than two years ago and we have offered the cluster twice. The issues raised in this section are the result of a great deal of self

assessment and discussion among the authors with comments from their colleagues and students.

We all entered this project thinking we had created the perfect course. We were full of optimism. After all we had a structure which avoided the problems of doing interdisciplinary education in a disciplinary environment. Our cluster course has the virtue of being durable because it can withstand changing conditions, such as leaves of absence, sabbaticals and the addition or deletion of courses. We are committed to clustering courses, not our particular courses. Therefore, we could include a sociology, psychology, history or literature course as long as it is currently in the general education category in which the cluster participates. Furthermore, changes in faculty or the inclusion of other courses can be accomplished without much administrative interference.

The cluster structure isn't the only advantage. Students benefit in a number of ways. First, their introduction to our disciplines is not confined to <u>what</u> the disciplines are, but includes <u>why</u> they are important. Since the joint sections are built around contemporary issues, rather than established truths, students come to see disciplines as approaches to both intellectual and personal problems while coming to understand the connections that exist across disciplinary boundaries. Second, students benefit from the discussion of contemporary dilemmas which require value judgments. The pedagogy requires the active exploration of the relationship between values and decisions. Thus, we do not offer the students a package of

values, rather we make them explore their own values while confronting possible challenges to and contradictions in their value systems. Students in the joint sessions get excited and occasionally argue with both passion and commitment. Sometimes they leave these sessions angry or defensive indicating that the exercise has hit home. Perhaps the best indication of the effectiveness of active participation is the high percentage of student who really take part in the discussions and debates which are inevitably part of the exercises. In a class of approximately 120 students we usually have more than half participate. Finally, students see, hear, and join with faculty members who are actively engaged in intellectual pursuits: disagreeing, becoming confused and coming to learn something in the process.

Additionally, advantages accrue to the participating faculty. We are all intellectually stimulated by one another and learn new things by being exposed to new points of view. We get on each other's nerves occasionally, but this probably makes all of us more tolerant. Still, as was indicated in the previous section, everything didn't go as well as we would have liked.

There were a number of coordination problems. It was especially difficult to restructure courses that have been taught frequently in the past. All of us have taught these courses before and we have organization and content with which we are comfortable and which we think of as being effective. As a result, it was impossible to develop a new outline which still

fit the structure of any of the original courses. Being the tradition bound creatures we are, all of us attempted to manipulate the agreed upon structure to conform to our old outlines. Other coordination problems included the selection of mutually satisfying joint reading assignments and getting the written materials about exercises distributed with enough lead time to allow students to prepare for them. We discovered (much like reinventing the wheel) that it is harder to coordinate the activities of three people than one. This, however, was both expected and not a major drawback. Experience has either made us insensitive to the problem or reduced its intensity.

The first semester we taught the course we met jointly once a week. This proved to be too often. Some of the joint sessions lacked coherence and didn't relate well to what was taking place in our separate classes. This made it difficult for students to see the connections across the disciplinary boundaries and it also tended to trivialize the joint sessions. Furthermore, it made it difficult for us to cover the content necessary for our separate classes. In our most recent implementation of this cluster we meet jointly twice per subject area or six times all together [roughly 25% of class time is spent in joint sessions]. In addition, we take more time for preparation during our independent sessions.

Perhaps our biggest surprise came when we received the results from standardized student evaluations of the course after the first semester. All of us received lower evaluations than we usually receive and in many areas our evaluations were

below the mean for the school as a whole. We used narrative evaluations also, but even though some comments were critical, they did not suggest that the students were displeased. We have attempted to understand the student reaction and believe there are several interacting factors responsible. First, this was the first time we offered the course. At times we were disorganized and lacked coordination, especially in the operation of the joint sessions. Second, the organization of the course and the pedagogy deviated a great deal from what students have been socialized to expect. Active learning, role-playing, discussing, and especially arguing with other students or one's professors are not normal classroom experiences. Some students have a low tolerance for change. Third, some students resent be ıg the subjects of teaching experiments. Fourth, our attempts to stick to old lectures or past content occasionally created a lack of coherence for the students, especially in the joint sessions. Afterall, if a student is learning about the !Kung of the Kalahari on one day and discussing nuclear war the next, it is a bit difficult to make the connection. Finally, the instrument (i.e., the Student Instructional Report SIR) is designed to assess student responses to lecture courses and is, therefore, inadequate for our course.

We have attempted to remedy the shortcomings of the first implementation of the cluster course which we believe influenced the relatively low evaluations we received. For example, we have replaced or restructured exercises which didn't work. We have eliminated joint meetings which contributed little to the

objectives of the course. We have improved coordination and done more to inform our students about the goals, structure and rationale of this cluster. We have attempted to make the joint sessions more directly reflect the subject matter being taught during the independent sessions. We have selected joint reading with which we are all more comfortable. In general, we are all more satisfied with the current implementation of the course. We remain convinced that it is a viable model of inter-disciplinary education and an excellent way of increasing breadth, commonality and relevance in liberal arts education.

References

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